

Landscaping to Conserve Energy

Proper landscaping is one of the least recognized, yet highly effective ways of helping you reduce the amount of energy required to cool and heat your home. By planning before you plant, you can conserve energy.

In this section you will learn how to use landscaping to reduce the amount of sunlight – solar heat – entering your home, and how to increase the benefits you can receive from wind and breezes.

Landscaping for Shade

You are not the only one who feels cooler in the shade; so does your house. Shading offers valuable energy-saving benefits.

Strategically placed trees and shrubs can reduce the temperature of surrounding air by as much as nine degrees because of a process known as evaporative cooling. In this process, moisture released through pores in the leaves evaporates as it absorbs heat from the surrounding air.

Here are some considerations to help you shade most effectively:

- Trees with full crowns are best for summer shading. Their high branches allow greater visibility

below the branches and do not block the flow of cooling summer breezes.

- Choose the location for your shade tree based on careful consideration of seasonal sun angles. For example, to minimize the impact of the strong summer sun, plant shade trees on the east and west sides of your home. This reduces exposure during early morning and late afternoon hours.

- Consider planting deciduous trees (that lose their leaves in winter) that will shade the house in summer but allow the sun's rays to penetrate and help heat the home in winter.

- Remember that trees *cannot* provide shading on

the roof when the sun is directly overhead.

- The roof need not be totally shaded to achieve excellent energy-saving results. Air conditioning costs can be reduced as long as the roof is properly insulated and partially shaded during the day.

- Vines and other plants that cling to trellises along walls can shade homes, offering additional protection.

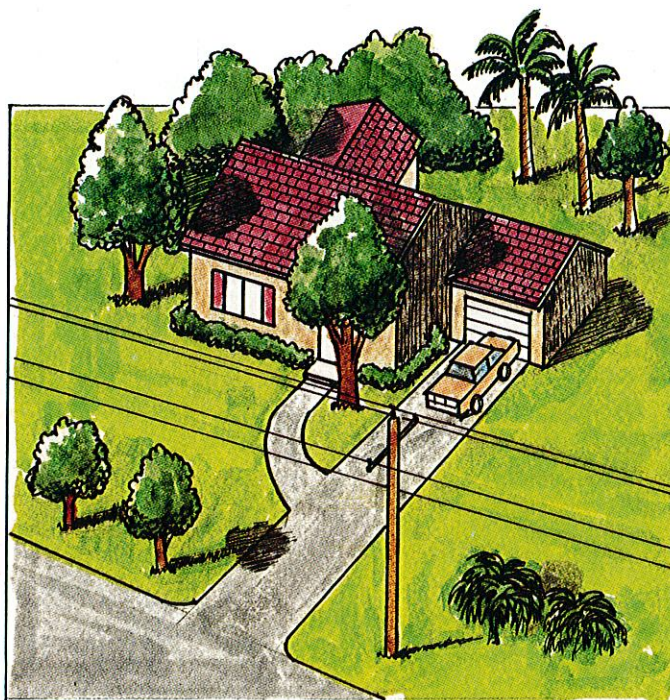
- Use trees, shrubs and other plants to shade air conditioning equipment. Studies show up to a 10 percent increase in air conditioning efficiency in homes where the air conditioning equipment is properly

shaded. Landscaping should not interfere with equipment's air flow, however.

- Other hotspots around the home which can benefit from shade are patios, driveways and sidewalks. They absorb heat during the day and radiate it long after the sun sets. Deciduous trees planted on the west side of the pavement can reduce this heat build-up.

Boosting Wind Benefits

Use Florida's cool winter winds and warm summer breezes to your advantage. Good landscaping will help you increase the benefits you receive while protecting you from unpleasant winds. Trees, shrubs and other plants can serve as windbreaks and help channel winds and breezes so they provide natural ventilation when you need relief.



Smart landscaping does more than beautify your property – it helps you cool and heat your home efficiently by shading in the summer, allowing heat gain in winter.

Here are some considerations to help you make the most of wind and breezes:

- In Florida, winter winds prevail from the north; summer breezes from the south and southeast. For this reason, consider planting evergreens as windbreaks on the north, northwest and northeast exposures of your home. In the summer, these trees will help steer cooling breezes your way.

- As a rule of thumb, evergreen trees with dense canopies offer excellent wind protection.

- Windbreaks of two to

five rows of trees and shrubs generally provide good protection, although a single row of evergreen trees offers some protection.

- Windbreaks will reduce wind velocity significantly for a distance of about 10 times the height of the trees. In other words, a windbreak 30 feet high protects an area extending as far as 300 feet.

- If you use air conditioning to cool your home, plant dense shrubbery, especially near the south exterior wall, to block outside air from penetrating doors and windows. Infil-

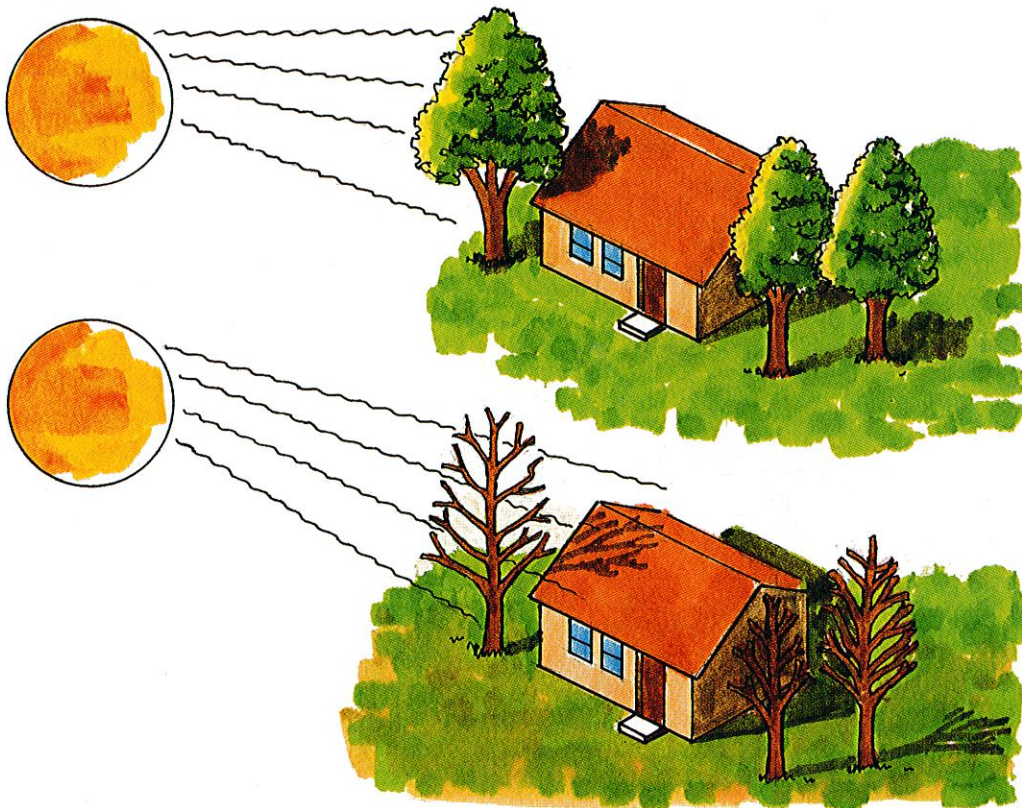
tration or air leakage can account for as much as one-third of the air conditioning losses in some homes.

- The use of plantings along the foundation of your home can create a dead air space which slows the escape of heat from buildings and helps insulate your home from hot outside air, reducing the need for air conditioning.

Take Advantage of FPL Programs and Services

Through proper landscape planning, you can achieve valuable savings on your

energy bills. FPL also offers other programs and services designed to help you make – and keep – your home energy efficient, and to help you keep your electric costs low. And if you qualify, FPL will help you pay for installation by approved contractors of residential ceiling insulation, energy efficient water heating systems and select window treatments. FPL representatives also will perform free, no-obligation energy audits of businesses and homes to show owners how to reduce energy waste. For information, call your local FPL office, or FPL's toll free Watt-Wise Line: 223-WATT in Dade, 463-WATT in Broward, or 1-800-432-6563.



Deciduous trees, which are leafless in winter, are a smart choice for conservation-minded homeowners. The leafy trees provide summer shade but allow you to capture the sun's warmth on chilly winter days.